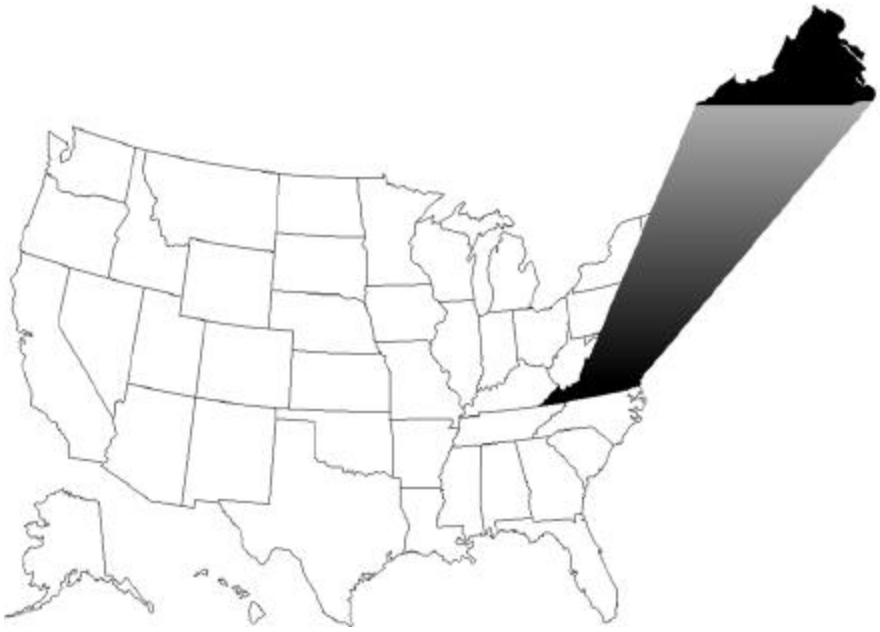
— 1999 DETAIL REPORT —

VIRGINIA STATE ASSESSMENT PROGRAM

STANFORD
ACHIEVEMENT TEST SERIES
Ninth Edition



The *Virginia State Assessment Program 1999 Detail Report* was prepared by the Virginia Department of Education, Division of Assessment and Reporting, P.O. Box 2120, Richmond, VA, 23218-2120.

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EXECUTIVE SUMMARY

During the period of September 13-October 15, 1999, the *Stanford Achievement Test* Series, Ninth Edition, Form TA, Abbreviated *(Stanford 9)* was administered to over 258,000 students throughout Virginia in grades 4, 6, and 9. This was the third administration of *Stanford 9* as the norm-referenced component of the Virginia State Assessment Program (VSAP)—the first administration occurred in Spring 1997 when *Stanford 9* was taken by students in grades 3, 5, 8, and 11. The second administration took place in Fall 1998.

Numbers and Percentages of Students Tested

The table below indicates the number and percentage of students tested statewide at each of the three grade levels in Fall 1999 as well as corresponding data from the previous administrations.

Table 1.1— Number / Percent of Students Tested, 1997-1999:

	Spring 1997		Fall 1998		**Fall 1999**	
	Number	Percent	Number	Percent	**Number**	**Percent**
grade 4 (grade 3 in '97)	81,087	95%	85,434	96%	**87,411**	**96%**
grade 6 (grade 5 in '97)	81,171	96%	82,588	96%	**82,963**	**95%**
grade 9 (grade 8 in '97)	78,382	95%	85,527	93%	**87,857**	**92%**

Statewide Percentile Ranks

Test levels administered in Fall semesters to grades 4, 6, and 9 are the same as those administered to grades 3, 5, and 8 respectively in Spring 1997. However, Virginia's Fall semester percentile ranks are based on comparison to a Fall standardization of *Stanford 9* while the Spring 1997 percentile ranks were based on a Spring standardization. As a result, it is important to remember that a given raw score is unlikely to yield the same percentile rank in both Fall and Spring scoring. This does not affect the usefulness of percentile ranks in drawing comparisons between Virginia's achievement and the national average or comparing Virginia's achievement in a given Fall semester relative to another Fall semester (i.e., to determine growth, gain, or loss). This situation does, however, make comparison of any Fall semester percentile ranks to Spring 1997—whether at the student, school, division, or state level—statistically invalid.

Virginia's Performance Well Above the National Average

Regardless of the time of year at which a nationally normed test is administered, national average performance in the test's standardization always falls at the 50th percentile. Table 1.2 on page 6 confirms that across the three grades tested, Virginia's Fall 1999 achievement was at or above the national average in 28 (85%) of the 33 *Stanford 9* subtests and content area totals. Because valid comparison of percentile ranks from both Fall administrations (1998 and 1999) is possible, Table 1.2 includes percentile ranks from each of those years.

The following specific points are also indicated in Table 1.2:

- Achievement in grade 4 was above the national average in 10 of the 11 subtests and content area totals, and up in all subtests and totals when compared to 1998.
- In grade 6, achievement was also above the national average in 10 of the 11 subtests and content area totals. As in grade 4, scores were up from 1998 in all subtests and totals.
- Achievement of Virginia's ninth grade students was at or above the national average in 8 of the 11 subtests and content area totals. Compared to 1998, scores were up in all but one of the various subtests and content area totals.

Table 1.2 – Fall 1999 Statewide Percentile Ranks

	***Stanford 9* level and grade tested**					
	Primary 3 grade 4		**Intermediate 2 grade 6**		**Advanced 2 grade 9**	
	1998	**1999**	**1998**	**1999**	**1998**	**1999**
Reading Vocabulary	47	49	58	59	56	57
Reading Comprehension	50	53	58	59	60	62
TOTAL READING	**50**	**52**	**58**	**59**	**58**	**60**
Mathematics: Problem Solving	57	61	64	67	58	61
Mathematics: Procedures	51	54	52	55	46	44
TOTAL MATHEMATICS	**53**	**57**	**58**	**62**	**54**	**55**
Prewriting	52	55	42	43	47	49
Composing	50	53	54	55	52	54
Editing	57	59	57	60	48	49
LANGUAGE	**54**	**57**	**51**	**53**	**48**	**50**
PARTIAL (Basic) BATTERY	**53**	**56**	**58**	**60**	**55**	**56**

The percentile ranks shown above can be used to reliably compare Virginia's 1999 achievement to that in 1998. However, they cannot be used—if compared—to reliably determine whether Virginia students gained or lost in terms of real performance in either of these years relative to 1997 when *Stanford 9* was administered in the Spring semester. A better measure of change across all administrations of VSAP is the Scaled Score.

Scaled Scores

Stanford 9 Fall and Spring raw score-to-scaled score conversions within each specific content area/test level combination are identical. For example, in Primary 3 Reading Vocabulary, a raw score of "X" will convert to a scaled score of "Y" for both Fall and Spring testing. This scaling system allows educators to use scaled scores in a given level of *Stanford 9* to make reliable determinations of growth or loss from one year to the next regardless of the time of year the test was administered or the grade in which the test was administered.

Additionally, each *Stanford 9* subtest and content area total features a constant scaled score range that crosses all available test levels, regardless of the grade tested or test form. This allows meaningful comparison of the achievement of a given student, school, division, or state in a given subtest or content area total from year to year as well as over several years.

Table 1.3 below displays mean ("average") statewide scaled scores from the 1997 through 1999 VSAP administrations and confirms the following important points:

- From 1997 to 1998, grade 4 showed gains in performance in 9 of 10 subtests and content area totals for which *Stanford 9* scaled scores have been developed. In 1999, gains were made in all 10.
- In grade 6, the Prewriting subtest shows a slight loss over the three-year period, primarily due to a drop in 1998. However, when compared to 1998, gains were made across the board in 1999.
- In grade 9, a fairly significant gain has been made since 1997 in Mathematics: Problem Solving, while Mathematics: Procedures shows modest declines in both 1998 and 1999. In 1999, gains were made from 1998 in all subtests and content totals other than Mathematics: Procedures.

Table 1.3 – Comparison of Mean Statewide Scaled Scores, 1997-1999

***Stanford 9* level / grade tested**	**Primary 3, grade 4**				**Intermediate 2, grade 6**				**Advanced 2, grade 9**			
administration	**1997 * (gr. 3)**	**1998**	**1999**	**3-yr * gain (loss)**	**1997 (gr. 5)**	**1998**	**1999**	**3-yr gain (loss)**	**1997 (gr. 8)**	**1998**	**1999**	**3-yr gain (loss)**
Reading Vocabulary	620.2	625.8	627.3	7.10	671.7	673.3	674.4	2.8	707.7	708.5	710.1	2.4
Reading Comprehension	624.6	631.8	634.4	9.80	664.2	665.8	667.5	3.3	701.6	700.7	702.3	0.7
TOTAL READING	**622.9**	**629.3**	**631.3**	**8.40**	**666.8**	**668.5**	**669.9**	**3.1**	**702.6**	**702.3**	**703.9**	**1.3**
Mathematics: Problem Solving	615.7	624.2	628.9	13.20	658.9	662.4	665.6	6.7	679.8	686.4	689.6	9.8
Mathematics: Procedures	592.1	591.3	595.0	2.90	659.8	658.6	663.0	3.2	696.9	696.2	694.7	(2.2)
TOTAL MATHEMATICS	**604.4**	**608.9**	**613.1**	**8.70**	**658.1**	**659.7**	**663.4**	**5.3**	**686.5**	**690.2**	**691.4**	**4.9**
Prewriting	593.5	600.7	604.9	11.40	622.8	621.4	622.1	(0.7)	654.6	654.7	657.1	2.5
Composing	597.2	604.9	608.2	11.00	632.7	634.8	636.4	3.7	658.1	656.8	659.4	1.3
Editing	592.3	597.8	600.8	8.50	633.1	632.9	635.4	2.3	654.0	655.7	657.3	3.3
LANGUAGE	**592.9**	**600.0**	**603.7**	**10.80**	**629.5**	**629.7**	**631.5**	**2.0**	**654.5**	**655.2**	**657.4**	**2.9**

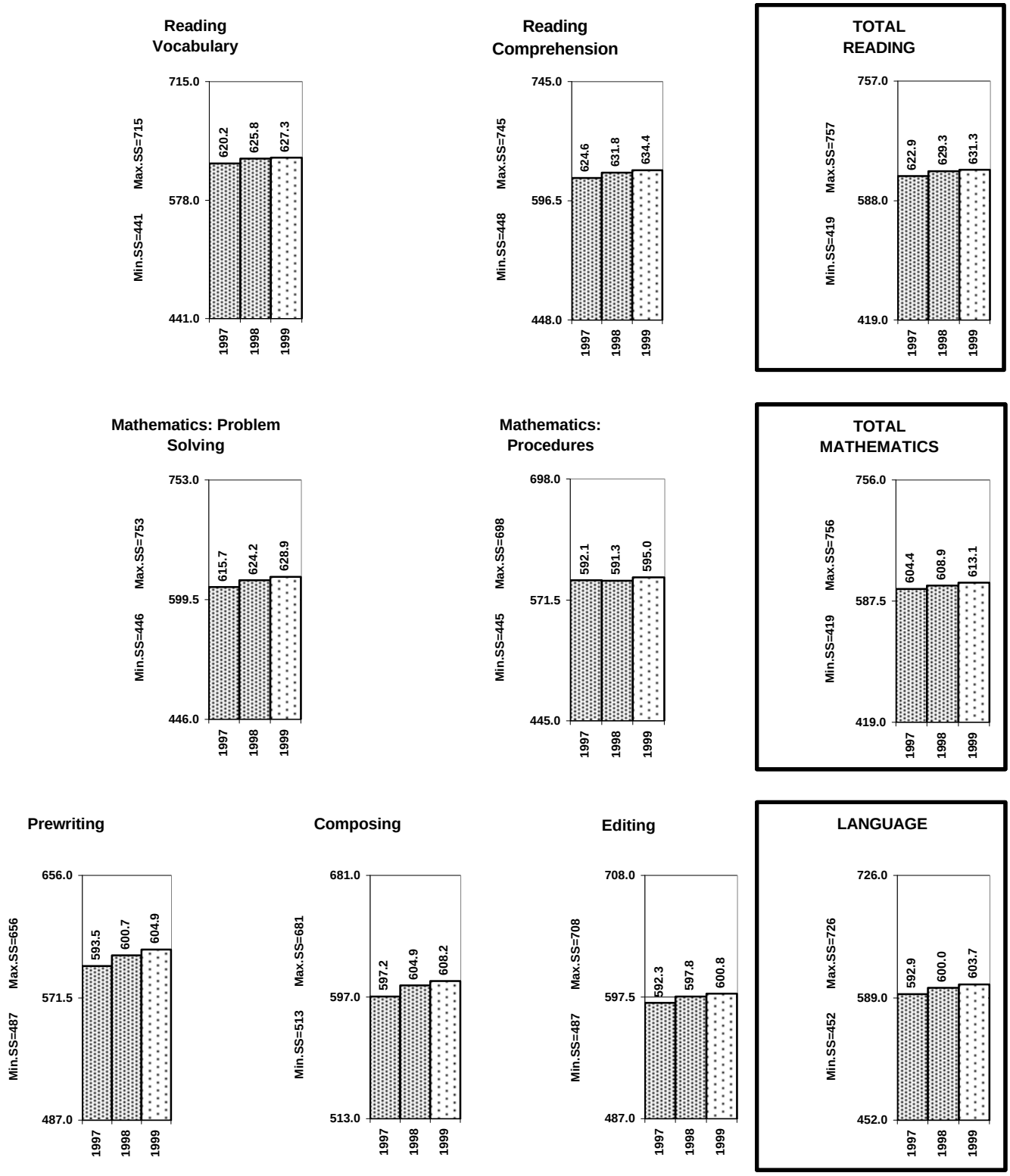
* 1997 grade 3 scaled scores shown above are corrected. Those reported in Table 1.3 in the 1998 *Detail Report* were incorrect.

NOTE: Scaled scores are not available for the *Stanford 9* Partial Battery.

Figures 1.4 through 1.6 on pages 8-10 indicate the entire range of scaled scores for each subtest and content area total for each of the levels of *Stanford 9* Form TA, Abbreviated administered in VSAP. Within each range, the locations of mean statewide scaled scores from the 1997 through 1999 VSAP administrations are indicated.

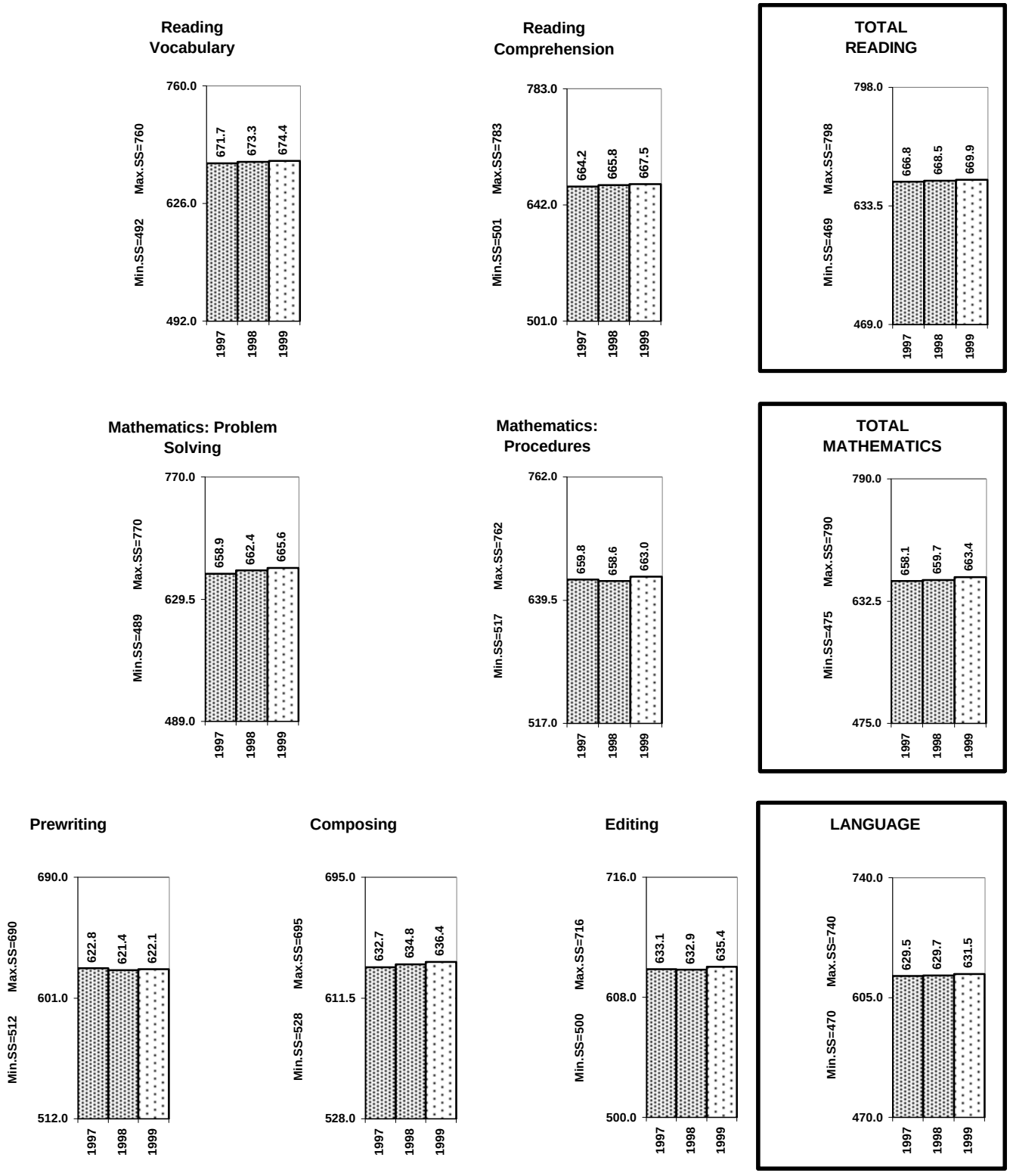
It is important to note that *Stanford 9* scaled score ranges are not the same from one subtest and/or content area to another. So, though scaled scores can be used within a given subtest or content area total to reliably compare performance from different testing cycles (e.g., Fall to Spring or year to year), they cannot be used to determine relative strength and weakness across subtests and content area totals. For example, comparison of a mean scaled score of 675 in Total Reading and a mean scaled score of 650 in Total Mathematics for sixth graders in a particular school does not necessarily indicate that the school's sixth grade students performed better in reading than in math.

Figure 1.4–Grade 4 VSAP Scaled Score Performance
Stanford 9 Primary 3, Form TA, Abbreviated



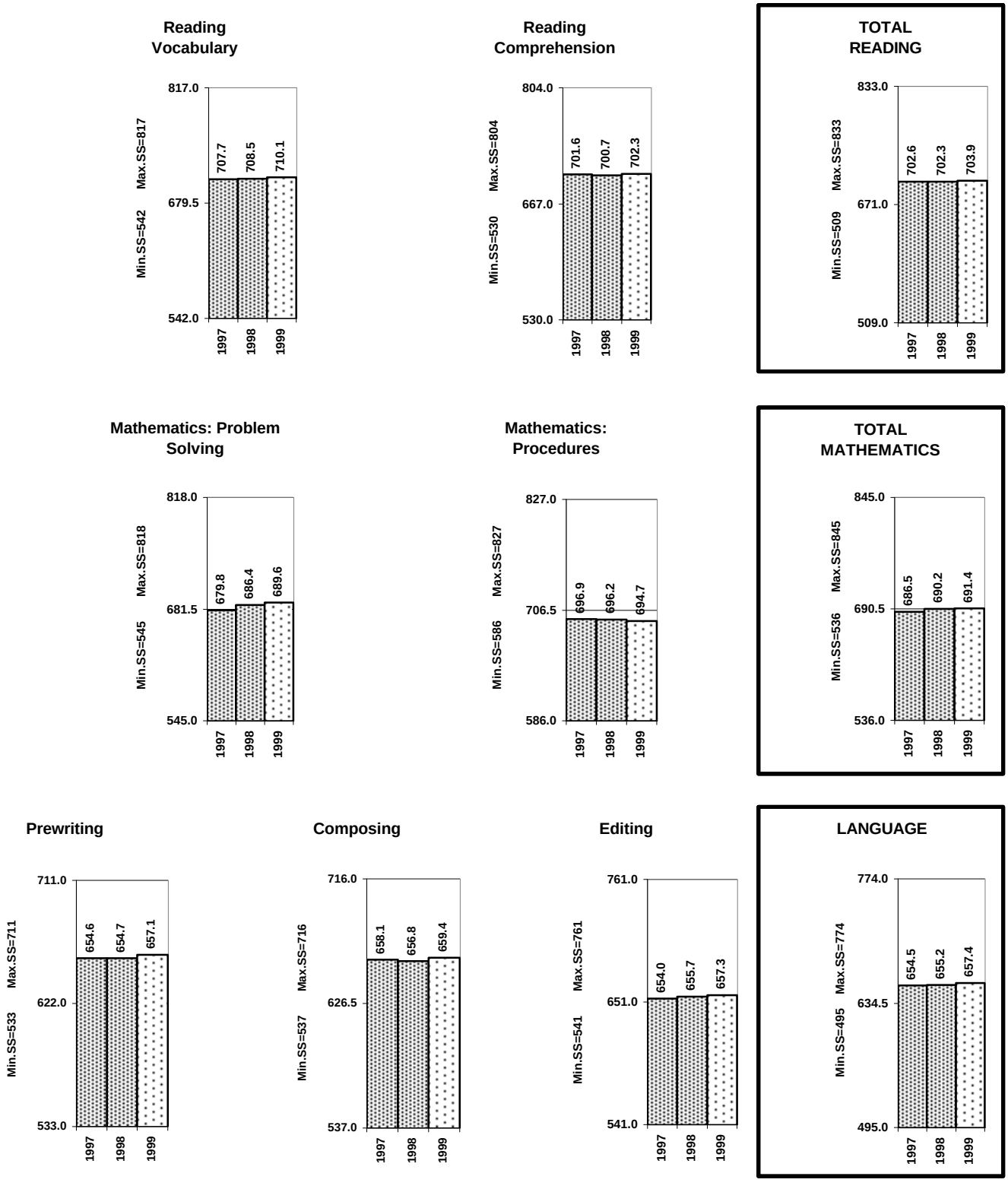
Indicated minimum and maximum scaled scores for each content area and total are those attainable at the Primary 3 level of *Stanford 9* Form TA, Abbreviated. However, because all *Stanford 9* Form TA, Abbreviated test levels are equated to the same scale, a scaled score of 600, for example, is equal to the same level of performance regardless of test level, including Intermediate 2 (grade 6) and Advanced 2 (grade 9). The graphs above indicate corrected scaled scores for 1997. (See also Table 1.3 on page 7.)

Figure 1.5–Grade 6 VSAP Scaled Score Performance
Stanford 9 Intermediate 2, Form TA, Abbreviated



Indicated minimum and maximum scaled scores for each content area and total are those attainable at the Intermediate 2 level of *Stanford 9* Form TA, Abbreviated. However, because all *Stanford 9* Form TA, Abbreviated test levels are equated to the same scale, a scaled score of 600, for example, is equal to the same level of performance regardless of test level, including Primary 3 (grade 4) and Advanced 2 (grade 9).

Figure 1.6–Grade 9 VSAP Scaled Score Performance
Stanford 9 Advanced 2, Form TA, Abbreviated



Indicated minimum and maximum scaled scores for each content area and total are those attainable at the Advanced 2 level of *Stanford 9* Form TA, Abbreviated. However, because all *Stanford 9* Form TA, Abbreviated test levels are equated to the same scale, a scaled score of 600, for example, is equal to the same level of performance regardless of test level, including Primary 3 (grade 4) and Intermediate 2 (grade 6).

Achievement Summary

Overall performance

- Virginia's grade 4 achievement in 1999 was at or above the national average (50th percentile) in all subtests and totals with the exception of Reading Vocabulary. Relative to 1998, fourth grade scaled scores were up in all subtests and totals.
- Overall 1999 achievement in grade 6, as in 1998, was above the national average in all subtests and totals with the exception of Prewriting—1999 achievement in Prewriting was up from 1998 in terms of both the percentile rank (42nd to 43rd) and mean scaled score (621.4 to 622.1).
- In grade 9, statewide achievement was at or above 50th percentile in eight of the eleven subtests and totals. Mathematics: Procedures, Prewriting, and Editing were the exceptions. Performance in Mathematics: Procedures declined in 1999 from 1998.

Subgroup performance

- Females scored higher than males in all subtests and content area totals except Mathematics: Problem Solving and Total Mathematics in grades 4 and 9, and Mathematics: Problem Solving in grade 6.
- American Indian/Alaskan Native students in grade 4 scored at or above the national average in 9 of the 11 subtests and content area totals—Mathematics: Problem Solving was at the 63rd percentile. Sixth graders were at or above the national average only in Mathematics: Problem Solving and Total Mathematics, while ninth graders met or exceeded the national average in each Reading subtest, Total Reading, and Mathematics: Problem Solving.
- In 1998, Asian/Pacific Islander students scored below the national average only in grade 4 Reading Vocabulary. In 1999, this population exceeded the national average in all subtests and totals in grades 4, 6, and 9.
- As in 1998, Black students scored below the national average in all subtests and content area totals in 1999.
- Hispanic students in grade 4 scored at or above the national average in both Mathematics subtests and Total Mathematics, Prewriting, Editing, and the Language total. Sixth graders were at or above the national average in Reading Comprehension, Total Reading, Mathematics: Problem Solving, and Total Mathematics. Ninth grade Hispanic students scored at the national average in Reading Comprehension and Mathematics: Problem Solving.
- White students scored at or above the national average in 1999 on all subtests and content area totals except grade 6 Prewriting. This population also scored below the national average in grade 6 Prewriting in 1998.
- Students with limited proficiency in English scored well below the national average in all subtests and content area totals.